series of slight epileptic attacks without hemiplegia. The patient had a right hemianopsia, some impairment of memory and difficulty in awaking visual images of objects, but no aphasia, strictly speaking.
PATRICK.

80. TEMPERAMENTO E CARATTERE NELLE INDAGINI PSYCHIATRICHE E D'ANTROPOLOGIA CRIMINALE (Character and Temperament in the Insane and in Criminals). Del Greco (Il Manicomio moderno, 14, 1898, p. 161).

The author makes two general categories for human kind; the one, psycho-physiques, or temperament, and psycho-social, or character. A man's inner feelings determine his temperament; his relations to his fellow men, his character. The author holds, that from both points of view, in many neuroses there are well established variations in both temperament and character, which are closely correlated to the neurosis in question; thus he would speak of an epileptic or paranoiac temperament and character. In the criminal there are changes of much the same type, so that while a criminal may not be epileptic nor be a paranoiac, yet he usually possesses a temperament and a character which approaches those of the epileptic and the paranoiac. JELLIFFE.

THERAPY.

81. A DISCUSSION ON THE THERAPEUTIC VALUE OF RECENT SYNTHETIC ANALGESICS: THEIR BENEFITS AND ATTENDANT RISKS (British Medical Journal, No. 1971, 1898, p. 1054).

Ralph Stockman thought that none of the analgesics hitherto tried acts in an ideal way or is without serious drawbacks for general and frequent use. He prefers phenacetin as being less harmful than acetanilid or even than antipyrin. Lactophenin is almost identical with phenacetin.

C. D. F. Phillips: Analgene, although it cannot be considered a very powerful analgesic agent, yet has the advantages of but slight toxicity, of tastelessnesss, and of easy solubility in acid media, so that, being readily absorbed from the stomach, its action is quickly produced. On account of its tastelessness and comparative harmlessness it is of especial value in the treatment of painful conditions in children. Its effect is transient, but this, if it be a defect, is easily overcome by a frequent repetition of the dose. Its great evil depends on the destructive action it exerts on the red blood corpuscles resulting in urobilinuria. Although untoward effects such as nausea, vomiting, diarrhea, tremor, vertigo and rashes have followed its use, yet, as a matter of experience, these unpleasant accidents rarely occur.

Euphorin is without doubt a powerful analgesic; it is said to have the activity of twice its weight of antipyrin. But like some other powerful analgesics it tends to interfere with the respiratory processes and to weaken the heart's action, and produce cyanosis with collapse. A negative advantage it has is that it does not induce changes in the blood or affect the kidneys.

Methylene blue is a distinctly useful analgesic, particularly in functional neuralgias and in all kinds of nervous headache. It, however, changes the hemoglobin of the blood into methemoglobin, and causes irritation of the stomach, leading to vomiting and diarrhea, and also of the urinary tract, having caused in different cases albuminuria, retention of urine, stranguary, cystitis, and spasmodic contraction of the bladder. In large doses it has caused muscular paresis, loss of sensibility and dyspnea.

Agathin is said to be both slow in its action and unreliable in its effect. It has caused vomiting, diarrhea, insomnia, vertigo, loss of consciousness, and even increase of the pain which it was given to relieve. It is probably not worthy of a place among valued analgesics both on account of its limited applicability and because of the accidents which have followed its employment.

The compounds of antipyrin, namely, pyramidon, salipyrin, tolipyrin, tolisall and ferripyrine, have, as analgesics, merely a weak action of their antipyrin element. They are harmless, but not as a rule sufficiently powerful for the treatment of urgent pain.

Those which are derived from salicylic acid, as well as antipyrin, namely, salipyrin and tolisall, are of use in painful states of rheumatic origin, but otherwise they are comparatively unimportant.

Malakin, being only slightly soluble in the ordinary menstrua, is slow in its action, very much slower than phenacetin, antifebrin or antipyrin, and is in every way much inferior to them; with the exception, however, that it may be given for a long period of time without disordering digestion. It has been found of distinct service in acute rheumatism. It has no deleterious action on the blood or kidneys, being indeed practically free from risk.

Neurodin, one of the para-amido-phenyl derivatives of anilin, is another remedy which is feeble in its action, but harmless in doses sufficiently large to elicit its analgesic effect. Not only is it weak, however, but it is uncertain, and must be considered greatly inferior to phenacetin and antipyrin.

Lactophenin appears to be more active as a mere sedative to the nervous system (relieving irritability, restlessness and depression) than as a pure analgesic. It is comparatively free from risk, although in medicinal doses it has produced vomiting, coldness of the body surface, cyanosis and collapse. But its great disadvantage is that it is inconstant in its analgesic effect; it has been known to fail completely in relieving the pain of multiple neuritis and of intercostal neuralgia.

Citrophen has not so far been much used as an analgesic. Its applications are much the same as those of phenacetin, but its attendant risks are greater, while its benefits are much less distinct. It has exerted in medicinal doses a gravely toxic effect on the blood, and has produced serious irritation of the intestine and kidney. It probably ranks very much below phenacetin.

Apolysin closely resembles phenacetin in its effects; it is said to produce analgesia even more vigorously than that remedy, but to be likewise more toxic. As it is much more soluble than phenacetin and the other members of the same group its action is correspondingly more prompt. It has been of especial benefit in migraine in diminishing the violence of the pain, in allaying the cutaneous hyperesthesia, and in shortening the duration of the attack. It is well tolerated in large doses, continued over long periods of time, without showing any tendency to accumulation or produce intestinal or renal irritation, or indeed any material injurious result. Its toxic effects, which are those of phenacetin, but more pronounced, are especially liable to occur if it is given on an empty stomach, or when that organ is producing an excessive amount of acid secretion. It is a remedy which, I think, may prove a valuable supplement to the phenacetin-antipyrin-exalgin group.

Phenocoll hydrochloride is a derivative of phenacetin, and is said to be as powerful an analgesic as it, and, being more soluble, it acts more quickly. Even if this be granted, it cannot be considered so safe a remedial agent. Its special use has been in neuralgias brought on by cold, that is, of rheumatic origin. But in children, and in debilitated adults, more especially in cases of advanced phthisis, it has caused alarming collapse with cyanosis. In other cases it has produced labial herpes, vertigo and general malaise. It is, however, a substance which, and as I expect, may take an important place in the future as a means of relieving painful states generally.

The salicylate of phenocoll or salocall has no advantage over the hydrochloride of phenocoll except that advantage which is due to the action of its salicylic acid element. It is said not to cause any gastric irritation, or indeed any untoward effect when given in medicinal doses.

Salophen is probably the best of the recent synthetic analgesics. It was introduced to replace salol, and has instead of its phenol radicle the acetyl-para-amido-phenyl radicle. Like salol it is not decomposed until it reaches the intestine, so it does not produce any gastric disturbance, as do the salicylates. Its toxicity is very slight, and is apparently due, when given in very large doses, to the salicylic acid it contains, but in medicinal doses it does not even produce the tinnitus and headache characteristic of the action of the salicylates. It has been of benefit in painful states of all sorts, but of special value in the neuralgias of children. When it is used to relieve the pains of influenza it is necessary to continue its administrations for a few days after the pains have been relieved. It is held, and with considerable reason, to be as effective and as safe as, or safer than, antipyrin and phenacetin, and it is probable that before long it will take rank with these substances.

Conclusions.—I would submit that salophen, phenocoll hydrochloride, apolysin and methylene blue are substances of high therapeutic value, and, without attempting to arrange them in order, would single out salophen as of exceptional promise; that agathin, being slow, unreliable, and even dangerous in its action, should be avoided; that some hesitation should be exercised in employing analgene and citrophen because of their toxic action on the blood, in using euphorin and lactophenin because of their inconstancy and tendency to produce collapse, and in choosing malakin because of its tardy action; and that pyoktanin, ferripyrin, pyramidon, salipyrin, tolipyrin, tolisall, and even salocoll, although they may be well and safely used as substitutes for better remedies, are unnecessary.

A. Lockhart Gillespie called attention to the benefit of adding caffeine to the analgesics and recommended migrainin as a good analgesic with no deleterious action on the heart.

D. J. Leech had had very good results from antipyrin and phenacetin. He considered pyridin decidedly harmful and had seen evil results follow the use of exalgin.

John Liddell had used exalgin extensively and had seen no ill-effects when given in proper doses.

J. R. Hamilton never used phenacetin or antipyrin without caffeine.

William Gordon had prescribed antifebrin for many years with no harmful results and also commended exalgin and phenacetin.

W. S. Frew used three or four of the chief drugs indifferently and considered antifebrin no more dangerous than antipyrin except perhaps because of its smaller dose.

J. O. Affleck thought exalgin of great service in reducing pain, but had seen fewer ill-effects produced by phenacetin than by any other of these drugs.

In closing the discussion, Dr. Stockman pointed out the danger of giving such substances as phenylhydrazin and anilin, or their derivatives, to a patient *de novo*. He was inclined to agree with Dr. Frew in thinking that as caffeine produced high tension and stimulated the cerebrum and cord it was rather to be avoided. He pointed out that the depressant action of analgesics was not, as some of the speakers had seemed to indicate, directly due to their action upon the heart, but to their influence upon the vasomotor center, and it was this action which was affected by caffeine. The little known drugs had their uses, and they should be thoroughly investigated before being abandoned. He said that Dr. Liddell's desire for a local anesthetic would probably never be fully satisfied; in the meanwhile, ethyl chloride and cocaine were all that were required. PATRICK.

82. THE TREATMENT OF HYDROCEPHALUS BY INTRACRANIAL DRAINAGE.

G. A. Sutherland and W. Watson Cheyne (Brit. Med. Jour., No. 1972, 1898, p. 1155).

The authors concluded from the investigations of Leonard Hill that in cases of hydrocephalus if an outlet were provided for the fluid contained in the ventricle so that it might flow into the meningeal spaces, it would rapidly be absorbed by the veins until the cerebral venous pressure and the cerebro-spinal pressure were equalized. In pursuance of this theory they operated upon three cases of congenital hydrocephalus, draining from the ventricle into the sub-dural space by means of catgut.

In the first case the diminution in the size of the head was rather rapid and continuous, but there was no improvement in the infant's mental or physical development, and it died three months after the operation with symptoms of basilar meningitis.

At the necropsy a considerable quantity of straw-colored fluid was found in the sub-dural space. The ventricles were both dilated, but not distended with fluid. The membranes at the base were thickened, and the ependyma of the ventricles formed a distinct membrane of a dark purple color, firm but not granular. The opening into the left ventricle made at the operation was quite evident, and some strands of catgut lay in it, while the rest of the drain could be traced up to the opening made in the dura mater,. at which point the brain was adherent to the dura mater. The adhesions formed were soft and easily broken down, and amongst them lay the external ends of the catgut drain. The brain was soft, cystic in parts, and very imperfectly developed.

In the second case there was also prompt and rapid diminution in the size of the head until all the bones of the cranial vault were overriding. At the end of four months the head was noticed to be quite asymmetrical and upon shaving the hair it was discovered that the right side of the fontanelle was tense and fluctuating while the left half gave no evidence of tension. It was apparent that drainage of the left ventricle was complete while that of the right had come to a standstill. Accordingly an operation was performed on the right side similar to that which had been done on the left and this operation was followed by complete disappearance of intracranial tension and gradual diminution in the size of the right side of the head. Six months after the first operation there was overriding of the cranial bones and the child had improved physically, but there was no evidence of mental development.

In the third case there were no apparent results from the operation and it was repeated a fortnight later, also without apparent results. Two weeks after this second operation the child died of measles.

In the discussion, Doctor Stiles reported three operations, all of which terminated unfavorably. PATRICK.